

Smart Mirror: Real-Time Try-On Experience Using Deep Learning Models

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Abstract: *The Virtual Try-On project is designed to revolutionize the online shopping experience by leveraging cutting-edge deep learning models to enable users to virtually try on clothing and accessories. This innovative system requires users to upload a full image, allowing it to accurately capture their size and generate realistic visualizations of how garments fit from multiple perspectives, including front, back, and side views. This project addresses one of the biggest challenges in e-commerce ensuring customers can see how clothes will look and fit before making a purchase. Unlike physical try-on sessions, the virtual approach offers greater convenience, saving time and effort while providing flexibility to try on multiple outfits without any physical limitations. Moreover, this promotes a more sustainable shopping model by significantly decreasing return rates. This benefits everyone, as fewer returns mean reduced shipping costs and lower environmental impact. By bridging the gap between physical and digital shopping experiences, the project sets a new standard in online fashion retail, making it more efficient, environmentally friendly, and customer-centric.*

Keywords: Virtual Try-On, Deep Learning Models, Realistic Visualizations, Garment Fit, E-commerce, User Satisfaction, Informed Purchasing Decisions, Sustainable Shopping, Reduced Return Rates, Digital Shopping Experiences.